## **HUC 111201 Prairie Dog Town Fork Red**

FIA Plots

#### **HUC 6 Watershed**

#### Climate Change Atlas Tree Species

Current and Potential Future Habitat, Capability, and Migration

**USDA Forest Service Northern Research Station** Landscape Change Research Group Iverson, Peters, Prasad, Matthews

sq. km sq. mi Area of Region 20,163 7,785.1

### **Species Information**

The columns below provide breif summaries of the species associated with the region and described in the table on the next pages. Definitions are provided in the Excel file for this region.

Genus	Species								Potential Change in Habitat Suitability			Capability to Cope or Persist			
Ash	0		Model					Scenario Scenario			Scenario	Scenario		SHIFT	SHIFT
Hickory	0	Abu	ndance	R	Reliability	Adaptability		RCP45	RCP85		RCP45	RCP85		RCP45	RCP85
Maple	0	Abundant	0	High	3	3	Increase	0	0	Very Good	0	0	Likely	0	0
Oak	0	Common	0	Medium	4	5	No Change	1	1	Good	0	0	Infill	0	0
Pine	0	Rare	3	Low	2	1	Decrease	2	2	Fair	1	1	Migrate	4	5
Other	3	Absent	6	FIA	0		New	6	6	Poor	1	1	•	4	5
•	3	_	9	_	9	9	Unknown	0	0	Very Poor	1	0			
							-	9	9	FIA Only	0	0			
										Unknown	0	0			
Potentia	al Chang	es in Climate Var	iahlac								-				

#### Potential Changes in Climate Variables

Temperature (°F)											
	Scenario	2009	2039	2069	2099						
Annual	CCSM45	34.6	34.7	34.9	35.0						
Average	CCSM85	34.6	34.8	34.9	35.2						
	GFDL45	34.6	35.2	35.0	35.2						
	GFDL85	34.6	34.9	35.1	35.5						
	HAD45	34.6	34.8	35.0	35.1						
	HAD85	34.6	34.8	35.2	35.5						
Growing	CCSM45	36.0	36.2	36.3	36.4						
Season	CCSM85	36.0	36.2	36.4	36.7						
May—Sep	GFDL45	36.0	36.8	36.5	36.8						
	GFDL85	36.0	36.4	36.7	37.2						
	HAD45	36.0	36.2	36.4	36.4						
	HAD85	36.0	36.2	36.6	36.9						
Coldest	CCSM45	32.6	32.7	32.8	32.9						
Month	CCSM85	32.6	32.8	32.8	33.0						
Average	GFDL45	32.6	32.8	32.8	32.9						
	GFDL85	32.6	32.6	32.7	32.8						
	HAD45	32.6	32.6	32.8	32.8						
	HAD85	32.6	32.8	33.0	33.1						
Warmest	CCSM45	36.6	36.7	36.8	36.9						
Month	CCSM85	36.6	36.8	36.8	37.0						
Average	GFDL45	36.6	37.0	37.1	37.3						
	GFDL85	36.6	37.0	37.2	37.6						
	HAD45	36.6	36.7	36.8	36.8						
	HAD85	36.6	36.8	37.0	37.1						

Precipitation (in)											
	Scenario	2009	2039	2069	2099						
Annual	CCSM45	2.2	2.4	2.3	2.2						
Total	CCSM85	2.2	2.3	2.4	2.3						
	GFDL45	2.2	2.3	2.6	2.2						
	GFDL85	2.2	2.3	2.4	2.2						
	HAD45	2.2	2.5	2.3	2.4						
	HAD85	2.2	2.3	2.0	2.4						
Growing	CCSM45	1.3	1.3	1.2	1.2						
Season	CCSM85	1.3	1.3	1.3	1.2						
May—Sep	GFDL45	1.3	1.3	1.5	1.3						
	GFDL85	1.3	1.4	1.4	1.2						
	HAD45	1.3	1.4	1.4	1.4						
	HAD85	1.3	1.2	1.1	1.3						

NOTE: For the six climate variables, four 30-year periods are used to indicate six potential future trajectories. The period ending in 2009 is based on modeled observations from the PRISM Climate Group and the three future periods were obtained from the NASA NEX-DCP30 dataset. Future climate projections from three models under two emission scenarios show estimates of each climate variable within the region. The three models are CCSM4, GFDL CM3, and HadGEM2-ES and the emission scenarios are the 4.5 and 8.5 RCP. The average value for the region is reported, even though locations within the region may vary substantially based on latitude, elevation, land-use, or other factors.

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Common Name	Scientific Name	Range	MR	%Cell	FIAsum	FIAiv	ChngCl45	ChngCl85	Adap	Abund	Capabil45	Capabil85	SHIFT45	SHIFT85	SSO N	1
sugarberry	Celtis laevigata	NDH	Medium	86.6	5.3	6.5	Lg. dec.	Very Lg. dec.	Medium	Rare	Very Poor	Lost			0 1	Ĺ
cittamwood/gum bumelia	Sideroxylon lanuginosum ssp	. NSL	Low	86.6	1.1	1.3	No change	No change	High	Rare	Fair	Fair			1 2	2
honeylocust	Gleditsia triacanthos	NSH	Low	86.6	1.0	1.2	Lg. dec.	Lg. dec.	High	Rare	Poor	Poor			1 3	3
ashe juniper	Juniperus ashei	NDH	High	0	0	C	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat			0 4	1
eastern redcedar	Juniperus virginiana	WDH	Medium	0	0	C	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3 5	5
post oak	Quercus stellata	WDH	High	0	0	C	New Habitat	New Habitat	High	Absent	New Habitat	New Habitat		Migrate ++	3 6	õ
live oak	Quercus virginiana	NDH	High	0	0	C	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3 7	7
American elm	Ulmus americana	WDH	Medium	0	0	C	New Habitat	New Habitat	Medium	Absent	New Habitat	New Habitat	Migrate ++	Migrate ++	3 8	3
cedar elm	Ulmus crassifolia	NDH	Medium	0	0	C	New Habitat	New Habitat	Low	Absent	New Habitat	New Habitat	Migrate +	Migrate +	3 9	9

